IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF TEXAS

TYLER DIVISION

STRAGENT, LLC and TAG FOUNDATION,	§	
	§	
Plaintiffs,	§	
	§	**CIVIL ACTION NO. 6:11-CV-421**
v.	§	
	§	
INTEL CORPORATION,	§	**JURY TRIAL DEMANDED**
	§	
Defendant.	§	

PLAINTIFFS' OPENING BRIEF REGARDING CLAIM CONSTRUCTION

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I. BACKGROUND AND NATURE OF THE CASE

Plaintiffs Stragent, LLC and TAG Foundation allege that Defendant Intel Corporation infringes U.S. Patent Nos. 6,848,072 (the "'072 patent"); 7,028,244 (the "'244 patent"); and 7,320,102 (the "'102 patent") (collectively, the "patents-in-suit").[1] On December 10, 2012, the parties filed their P.R. 4-3 Joint Claim Construction and Prehearing Statement (Dkt. No. 72), setting forth their respective positions.[2] The parties currently dispute the constructions of the following ten terms/phrases found within the asserted claims, which they have organized into groupings where possible in order to streamline the issues and facilitate an efficient presentation:

1. The "Instruction" Terms/Phrase
   a. **instruction**
   b. instruction indicating [that] [the/a] CRC operation is to be [executed/performed/initiated]
   c. **CRC instruction**
   d. **instruction store**
2. **CRC [output] result**
3. CRC state data
4. crossbar switch
5. **CRC circuit**
6. **CRC operation**
7. switch

[1] The '072 patent is attached hereto as Exhibit A; the '244 patent is attached hereto as Exhibit B; and the '102 patent is attached hereto as Exhibit C.
[2] The Joint Statement and accompanying exhibits are attached hereto as Exhibit D.

This Court provisionally construed the majority of the above terms in the now-dismissed lawsuit styled *Stragent, LLC v. Freescale Semiconductor, Inc.*, Case No. 6:10-cv-224-LED-JDL, *at* Dkt. No. 141 (September 23, 2011) (the "Freescale case").[3] The Freescale case involved the same patents-in-suit and many of the same asserted claims. Thus, in the interests of intrajurisdictional uniformity and efficiency – and most importantly, because the Court construed these terms correctly in the Freescale case – Plaintiffs urge the Court to adopt the same constructions for these terms in this case.[4] Defendant has not, and cannot, set forth any compelling bases for the Court to reconsider its prior constructions to add extraneous limitations or alternative language that would change the meaning and scope of the claims.

For the terms/phrases that were not previously construed, Defendant's proposed constructions do not comport with the plain language of the patents' claims and specifications and as such, will not assist the fact-finder in understanding the claims.

For these reasons, the Court should adopt Plaintiffs' proposed constructions for the ten claim terms/phrases at issue in this case.

II. LEGAL AUTHORITY

In recognition of the Court's claim construction expertise, Plaintiffs have omitted a legal section detailing the law governing the *Markman* process and general claim construction issues.

With respect to the law governing construction of previously construed terms, the *Markman* decision itself speaks to the importance of uniformity when two district courts – or as here, one court presiding over two lawsuits – are called upon to interpret the same claim terms of the same patents. *See Markman v. Westview Instruments*, 517 U.S. 370, 390, 391 (1996) ("Finally, we see the importance of uniformity in the treatment of a given patent as an

[3] The provisional claim construction opinion is attached as Exhibit E.
[4] Bolded terms in the list above indicate those terms provisionally construed in the Freescale case.

independent reason to allocate all issues of construction to the court . . . treating interpretive issues as purely legal will promote (though it will not guarantee) intrajurisdictional certainty through the application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court.”).[5]

The issue here is whether the interests of judicial economy and the risk of inconsistent claim constructions support this Court deferring to its prior constructions. Plaintiffs acknowledge that this Court is not absolutely bound to its prior constructions from the Freescale case. However, given *stare decisis* and the importance of uniformity in claim constructions, it is appropriate for this Court to rely on its prior constructions here. *See, e.g., Atmel Corp. v. Silicon Storage Tech. Inc.*, No. C 96-0039 SC, 2001 U.S. Dist. LEXIS 25641, at *22 (N.D. Cal. June 20, 2001) (finding the court could rely on a claim construction ruling from a ***different*** judge in the district where the same patent was at issue); *Maurice Mitchell Innovations, LP v. Intel Corp.*, Case No. 2:04-CV-450, 2006 U.S. Dist. LEXIS 41453, at *12 (E.D. Tex. June 21, 2006) (“Although not binding on this Court, Judge Illston’s thoughtful and thorough opinion is nevertheless entitled to reasoned deference under the broad principals *of stare decisis* and the goals articulated by the Supreme Court in *Markman* . . . .”); *Markman*, 517 U.S. at 391.[6]

The interests of uniformity are implicated most strongly in situations like these, where the same court is called upon to interpret previously-construed claim terms. For example, in *Visto*

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[5] Courts frequently cite the importance of such uniformity when considering whether to transfer patent cases to other courts that are more familiar with the patented technology, or that may have even already construed the claim terms at issue. *See, e.g., Logan v. Hormel Foods Corp.*, No. 6:04-cv-211, 2004 U.S. Dist. LEXIS 30327, 2004 WL 5126126, at *7-8 (E.D. Tex. Aug. 25, 2004); *U.S. Ethernet Innovations, LLC v. Acer, Inc.*, No. 6:09-cv-448, 2010 U.S. Dist. LEXIS 69536, 2010 WL 2771842, at *28-29 (E.D. Tex. July 13, 2010); *Norman IP Holdings, LLC v. Casio Computer Co.*, No. 6:09-cv-270, 2010 U.S. Dist. LEXIS 114408, at *18-19 (E.D. Tex. Oct. 27, 2010); *ColorQuick, LLC v. Vistaprint Ltd.*, No. 6:09-CV-323, 2010 U.S. Dist. LEXIS 136226, at *22-23 (E.D. Tex. July 22, 2010).

[6] Even where a prior claim construction issued from another judicial district, courts have found such decisions to be “persuasive and highly relevant” to construction in a later case. *See, e.g., Verizon Cal. Inc. v. Ronald A. Katz Tech. Licensing, LP*, 326 F. Supp. 2d 1060, 1069 (C.D. Cal. 2003).

Corp. v. Sproqit Techs., Inc., 445 F. Supp. 2d 1104, 1107-08 (N.D. Cal. 2006), the court decided that reliance on a prior construction was most appropriate when that prior construction was propounded by the same court, or at least by a court in the same district. Another court found that, where the prior claim construction was propounded by the same judge, it should defer to its previous construction to the extent the parties did not raise new arguments. *See Kx Indus., LP v. Pur Water Purification Prods.*, 108 F. Supp. 2d 380, 387 (D. Del. 2000); *see also Depomed, Inc. v. Sun Pharma Global SZE*, Civil Action No. 11-3553 (JAP), 2012 U.S. Dist. LEXIS 108791, at *11-12 (D.N.J. Aug. 3, 2012).[7]

Plaintiffs do not suggest that the Court adopt its prior constructions wholesale without giving Defendant the opportunity to argue why it believes this Court erred in its prior constructions. Instead, Plaintiffs believe that even after the Court considers Defendant's arguments, it will find that its own prior constructions were well-reasoned and entitled to deference in this case. Doing so will promote efficiency and intrajurisdictional uniformity in line with the *Markman* decision.

III. TECHNOLOGY AT ISSUE[8]

1. The Patents-in-Suit

The patents-in-suit are related to one another (*i.e.*, belong to a common patent family) and each patent claims priority to provisional application No. 60/233,578, which was filed on September 19, 2000.[9] The disclosures of the patents-in-suit overlap to a significant extent with each patent sharing a common title ("Network Processor Having Cyclic Redundancy Check

[7] Parties opposing a court's reliance on a prior claim construction frequently argue that the prior ruling cannot be binding because collateral estoppel does not apply in a situation where, as here, there is no identity of parties. *See, e.g., Kx Indus.*, 108 F. Supp. 2d at 387. Plaintiffs acknowledge that collateral estoppel does not apply here, and that the Court is not bound to accept its prior constructions. But as stated above, where a claim construction has been propounded in the same district, by the same court, and even by the same judge, *stare decisis* instructs that the Court give at least reasoned deference to its prior constructions. *See, e.g., Visto*, 445 F. Supp. 2d at 1108.

[8] The bulk of this Section replicates Plaintiffs' briefing in the Freescale case (*see* Dkt. No. 117, filed July 29, 2011).

[9] The '244 patent is a continuation of the '072 patent, and the '102 patent is a continuation of the '244 patent.

Implemented in Hardware"), inventor, and figures. With the exception of minor, non-substantive typographical differences, the patents-in-suit share the same specification. Accordingly, for brevity and ease of analysis, unless otherwise noted, all citations to the specification of the patents-in-suit will be to the '072 patent.

2. Summary of Patented Technology

In digital communications systems, data is routinely transmitted over processing devices in a network. *See* Exh. A, '072 Pat. at 1:18-19. Such digitized information often includes, for example, documents, messages, pictures, audio and video, etc. Figure 1 of the '072 patent provides an illustration of a typical network environment:

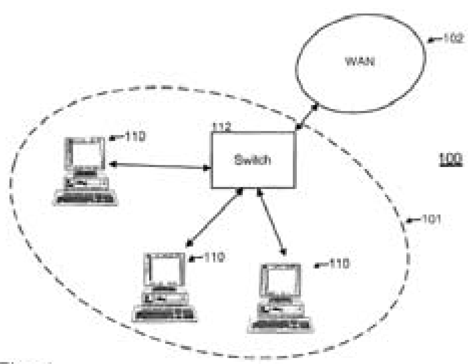

Fig. 1

Id. at 2:65-67. Processing devices employed in a network environment, such as those shown in Figure 1, are generally referred to as network devices and may include, for example, routers, switches, bridges, laptops, computers, and other computing devices. *Id.* at 1:18-28; 3:5-19. In typical networking environments, such as corporate intranets and the Internet, data is transmitted in discrete, formatted quantities known as packets, also commonly referred to as frames or cells. *Id.* at 1:19-21.

Generally, packetized data includes three main portions: a header, data payload, and trailer. The header includes various control information, such as the sender's address, the

recipient's address, and sequencing information, to assist the packet in reaching its final destination in a decipherable manner. The data payload portion of the packet includes the actual data being communicated from the sender. Finally, the trailer portion of the packet may include error correction information to assist in ensuring that the received payload data matches what was originally sent.

Cyclic Redundancy Check (CRC) is a technique used for detecting errors in data transmissions. *See, e.g.*, MICROSOFT PRESS, COMPUTER DICTIONARY 87 (1991).[10] CRC is the most common method of error detection for many data communication protocols. Exh. A, '072 Pat. at 1:47-49. In packet-based networks, for example, a CRC value is computed for a block of data and attached to the packet during transmission. *Id.* at 1:49-50. The computation of the CRC value is based, at least in part, on the data payload portion of the packet. The device receiving the packet can verify the integrity of the transmitted data by re-calculating the packet's CRC value and comparing it to the CRC value attached during transmission. *Id.* at 1:50-53; *see also id.* at 5:32-35 (describing an embodiment). If the re-calculated CRC value matches the one attached to the packet, it is assumed that the data transmission was error free. *Id.* If the re-calculated CRC does not match the one attached to the packet, however, the system assumes that the contents of the packet were corrupted during transmission. *Id.* at 1:50-53.

The invention disclosed by the patents-in-suit is directed to circuit components and methods that perform CRC calculations in a more efficient manner. *Id.* at 1:55-58. To achieve these efficiencies, the asserted claims call for implementing CRC operations using a CRC circuit that includes a "hardwired" (*i.e.*, "preexisting") CRC polynomial. *See id.* at Cl. 1 ("selecting one of a plurality of CRC circuits . . . . each of the plurality of CRC circuits including a CRC polynomial *hardwired* therein") (emphasis added); *see also* Exh. B, '244 Pat. at Cl. 1 ("a

[10] Attached as Exhibit F.

plurality of *preexisting* Cyclic Redundancy Check (CRC) circuits . . .") (emphasis added). Figure 3 is an exemplary circuit component that includes CRC circuits (elements 305-308) in accordance with the claimed invention:

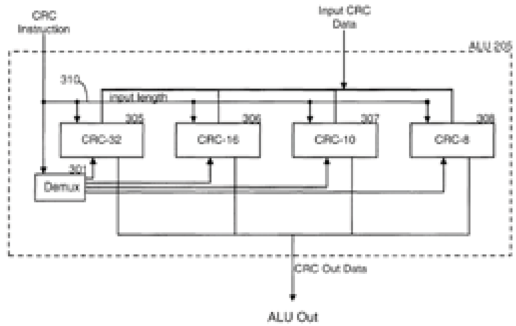

Fig. 3

Exh. A, '072 Pat. at Fig. 3; 4:23-27; and 4:48-61.

As is known in the art, CRC values are calculated according to a CRC polynomial. *Id.* at 4:3-10. Different CRC polynomials are possible in different CRC implementations. *Id.* CRC polynomials are typically classified by their highest non-zero exponent. *Id.* at 4:11-13. A common 16-degree CRC polynomial used, for example, in X.25 packet switched wide area network communication is $x^{16}+x^{12}+x^5+1$ (commonly designated CRC-16). *Id.* at 4:13-14.

As an abstraction, algorithms for calculating a CRC result may be conceptualized in terms of dividing a block of input data by a selected CRC polynomial, such that the remainder of the division becomes the CRC result. Exh. A, '072 Pat. at 3:58-64 (describing how calculating a CRC result may be conceptually compared to mathematical division). From an implementation standpoint, however, any number of CRC operations, including arithmetic and/or logical operations, may be employed to generate a CRC result based upon a CRC polynomial. *Id.* at 4:16-18; *see also* 4:62-5:10. Indeed, Figure 4 of the '072 patent illustrates one embodiment of an exemplary CRC calculation circuit 400 for calculating a CRC result based upon the five degree polynomial $x^5+x^4+x^2+1$:

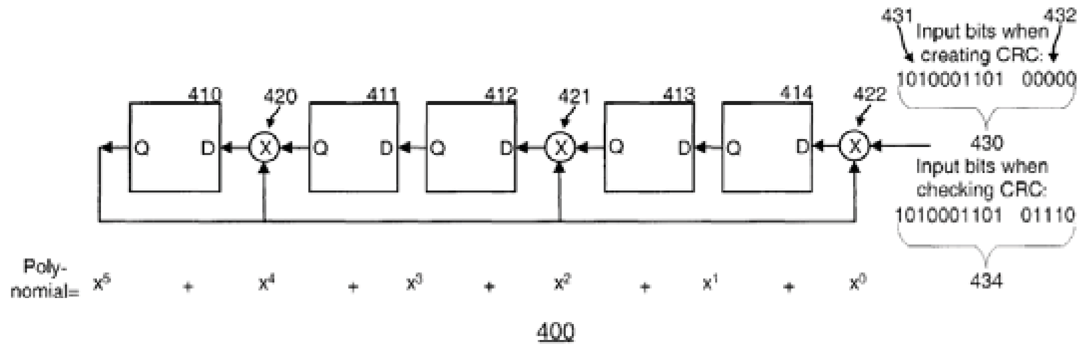

Fig. 4

Id. at 4:48-57. As described above, the CRC result may be sent or stored along with the input data to verify that the transmitted data is error-free. *Id.* at 3:64-4:2.

The circuit components and methods of the asserted claims utilize "hardwired" (*i.e.*, "preexisting" or "non-configurable by software") CRC polynomials, such as the one illustrated in Figure 4, to generate a CRC result. The patents-in-suit describe that these "hardwired" circuits provide processing efficiencies over conventional "software selectable polynomials" because, among other things, the complexity of the CRC circuits may be reduced:

> Because network processor 200 uses hardwired polynomials instead of software selectable polynomials, network processor 200 does not have to provide functionality to program any possible polynomial, thus the complexity of the CRC circuits can be reduced relative to a circuit that allows any polynomial to be used. Additionally, the reduced complexity of the CRC circuit may result in faster execution speeds for the CRC circuits.

Id. at 5:56-63.

The patents-in-suit further disclose the possibility of implementing multiple CRC operations, each potentially using a different polynomial, in separate CRC circuits. *Id.* at 5:37-39. In that situation, the CRC instruction indicates the appropriate CRC circuit – and polynomial hardwired therein – to use for a particular CRC operation. *Id.* at 5:39-41.

3. The Asserted Claims

Plaintiffs presently assert claims 1-10, 12-16, and 19-22 of the ‘072 patent; claims 1-8 and 10-11 of the ‘244 patent; and claims 1-3 and 5-9 of the ‘102 patent against Defendant.[11] Claim 1 of the ‘072 patent is exemplary and provides as follows:

> 1. A method for performing a Cyclic Redundancy Check (CRC) operation to generate a CRC result based on input data, the method comprising:
> receiving an [instruction indicating the CRC operation is to be executed], the instruction including an indication of a polynomial to use in calculating the CRC result;
> selecting one of a plurality of CRC circuits to obtain a selected CRC circuit to perform the CRC operation based on the indication of the polynomial in the instruction, each of the plurality of CRC circuits including a CRC polynomial hardwired therein;
> receiving current CRC state data at the selected CRC circuit; receiving the input data at the selected CRC circuit; and generating the CRC result with the selected CRC circuit.

Exh. A, ‘072 Pat. at Cl. 1 (emphasis added).

4. The Prior Constructions

As noted above, this Court issued a provisional claim construction ruling in the Freescale case on September 23, 2011. *See* Exh. E. For the reasons set forth below, Plaintiffs believe the provisional constructions issued for these terms were well-reasoned and correct in light of the

[11] During the pendency of this lawsuit, Defendant released its ‘Sandy Bridge’ processor line. Plaintiffs have not yet had the opportunity to take discovery on this new product family. Upon information and belief, certain Sandy Bridge products infringe the patents-in-suit, but Plaintiffs have not yet been able to determine whether the infringing component of the new processors functions in the same way as the processors Plaintiffs have taken discovery on. Thus, in an abundance of caution, Plaintiffs retain their original asserted claims against the Sandy Bridge products, and should they learn that those products function identically to the other accused products, Plaintiffs will narrow its asserted claims and notify the Court accordingly. Currently, the following claims are asserted against Defendant for the accused product families:

Intel Product Codename	U.S. Patent No. 6,848,072 (‘072 patent)	U.S. Patent No. 7,028,244 (‘244 patent)	U.S. Patent No. 7,320,102 (‘102 patent)
Nehalem	1-10, 12-13, 16, 19-22	1-5	
Tukwila	1-10, 12-13, 16, 19-22	1-5	
Westmere	1-10, 12-13, 16, 19-22	1-5	
Boxboro	1-10, 12-13, 16, 19-22	1-5	
Sandy Bridge	1-10, 12-16, 19-22	1-8, 10-11	1-3, 5-9

plain language of the patents-in-suit. Plaintiffs therefore encourage the Court to adopt the constructions it handed down in that case and focus its analysis on the claim terms not yet construed.

IV. CLAIM TERMS AT ISSUE

In the interests of efficiency and intrajurisdictional uniformity – and because the Court's prior constructions were correct – Plaintiffs proffer identical constructions for those claim terms already construed in the Freescale case. While Plaintiffs do not yet have the benefit of Defendant's briefing, which will presumably explain why Defendant believes ***all*** of the Court's relevant constructions in the Freescale case were erroneous, they attempt to anticipate and address these arguments herein.

1. The "Instruction" Terms/Phrases

Plaintiffs set forth here a general discussion of these claim terms (*i.e.*, the claim terms containing the word "instruction") as a whole, and will briefly address each separate claim term below.

Defendant's proposed constructions of each of the "instruction" terms/phrase differs from each of Plaintiffs' – and the Court's provisional constructions of the terms in the Freescale case – in the same way. Specifically, Defendant proposes that "instructions" somehow "cause" or "execute" a CRC operation, whereas Plaintiffs – and this Court, as evidenced by its Order in the Freescale case – believe instead that "instructions" are "indications" of operations that certain circuits are to perform. As explained below, Defendant's constructions are incorrect because, at most, the "instruction" contemplated by the patents-in-suit "indicates" a polynomial to be used during a CRC operation. The "instruction" does not directly "cause" the CRC operation to

execute. Defendants' attempt to conflate these distinct steps is improper, and the Court should not alter its prior constructions based on this argument.

As this Court is well aware, the words of the claims themselves, because they define the scope of the patented invention, should be considered first when determining meanings of claim terms. *See Vitronics Corp. v. Conceptronics*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Every occurrence of the instruction terms in the patents' claims relates to the CRC operation that ***can be*** performed at some point in the future; there is no instance where the instruction ***directly causes*** the CRC operation to be performed. *See, e.g.*, Exh. A, '072 Pat. at Cl. 1 ("receiving an instruction ***indicating the CRC operation is to be executed*** . . . perform the CRC operation ***based on the indication of the polynomial in the instruction***"); *id.* at Cl. 6 ("including at least one [CRC] instruction ***relating to a CRC operation*** . . . the selected hardwired polynomial being ***selected based on the CRC instruction***"); *id.* at Cl. 12 ("receiving an instruction ***indicating that a CRC operation is to be performed***"); *id.* at Cl. 19 ("issuing an instruction ***indicating that a [CRC] operation is to be initiated*** . . . ***selecting [a] polynomial*** to use to perform the CRC operation ***based on contents of the instruction***.") (all emphases added).

Further support for Plaintiffs' position is found in the specification. For example, the "instruction" disclosed by the common specification may select one of multiple hardwired CRC polynomials and then select a CRC circuit to use to perform the actual CRC operation ***based on*** the indication of the polynomial in the instruction. Exh. A, '072 Pat. at 1:64-2:7. The CRC instruction, then, does not actually ***cause*** the CRC operation to execute in the CRC circuit. Instead, it ***indicates*** that the operation should be performed based on the indication of a particular polynomial. *Id.* The CRC operation itself is directly implemented by the CRC polynomials and input data to generate a CRC result. *Id.* at Cl. 6 ("and in response to the CRC instruction,

generating the CRC result using the CRC circuit, the input data, and a selected one of the hardwired polynomials"); *id.* at 3:60-64 ("The CRC operation operates on a block of data as a unit. The block of data can be conceptualized as a single (large) numerical value. The CRC algorithm divides this large value by a number (the CRC polynomial or generator polynomial), leaving the remainder, which is the CRC result.").

In other words, the disclosed CRC operation occurs in a series of steps. In Step One, the CRC instruction indicates which polynomial will be used in the CRC operation. In Step Two, the CRC operation is performed, using the selected polynomial and input data to derive a CRC result. The CRC instruction does not ***cause*** the CRC operation. In fact, according to the patents' claims, the CRC instruction is not involved in the CRC operation at all, beyond indicating which polynomial, and in a particular embodiment, which CRC circuit, will be used. *See* Exh. A, '072 Pat. at Cl. 6. The Court should disregard Defendant's attempt to conflate these distinct steps to arrive at an inaccurate construction of the instruction terms.

As an analogy, a computer user seeking to "empty the trash" will be confronted with a dialog box asking whether the user is certain she wants to continue, and providing yes/no options for that question. The user can ***indicate*** which of the options (to continue or not to continue) she wants by clicking on the 'yes' or the 'no'. The indication of her choice (if 'yes,' to empty the trash; if 'no,' to return to the computer's main screen) does not, in and of itself, ***cause*** the emptying of the trash. Instead, the user's clicking on 'yes' sets into motion a series of steps that eventually lead to the trash being emptied. Clicking 'yes,' in other words, simply ***indicates*** that the trash should be emptied, but an entirely different program must be executed to ***cause*** that operation to occur.

The Court acknowledged this distinction during the Freescale *Markman* hearing. *See* Hearing Tr. at 71:18-21[12] ("THE COURT: Well, I guess let me ask this on cause. I think [Plaintiffs'] point is, is that the instruction does not cause the operation to occur but rather indicates it's to be performed. I guess my question is, how does this instruction cause the operation?"). The Court was apparently unsatisfied with Freescale's explanation, as it construed "CRC instruction" to include the "indicating" language supported by the patent itself, instead of the unsupported "causing" language.[13] *See* Exh. E at 4.

With this distinction in mind, Plaintiffs now turn to the individual instruction terms.

a. "instruction"

Plaintiffs' Proposed Construction	Court's Provisional Construction in the Freescale Case	Defendant's Proposed Construction
A statement or expression consisting of an operation and its operands (if any)	A statement or expression consisting of an operation and its operands (if any)	A programming statement or expression consisting of an operation and its operands (if any), which can be interpreted and executed by a processor in order to perform the specified operation.

The term "instruction" was construed by this Court in the Freescale case. *See* Exh. E at 4. Further, the construction advocated by Freescale was nearly identical to the one currently proffered by Defendant. *See* Exh. W at 5. Plaintiffs believe the Court should adopt its provisional construction in this case and disregard Defendant's attempt to read additional limitations into this straightforward term, as it did with similar attempts by Freescale.

[12] The transcript is attached hereto as Exhibit G.

[13] As does Defendant here, Freescale also attempted to read a "causing" limitation into its proposed construction for "CRC instruction." *See* Dkt. No. 110-2 in Case 6:10-cv-00224-LED-JDL (attached hereto as Exhibit W) at 5. Since this Court already considered – and rejected – the "causing" argument in the Freescale case, *stare decisis* supports the Court making the same ruling in this case.

Defendant's proposed construction differs from Plaintiffs' – and this Court's prior construction – in two ways. First, it requires that the statement or expression "***can be interpreted and executed by a processor in order to perform the specified operation***" and second, it specifies that "instruction" must constitute "a ***programming*** statement or expression." The parties' proffered constructions are identical in all other respects.

The first point is thoroughly discussed above: based on the patent language, the "instruction" does not itself "perform the specified [CRC] operation." Defendant's proffered construction is therefore inaccurate, and for the reasons stated above, the Court should refuse to include this limitation.

To address the second point, the addition of the term "programming" to the straightforward "statement or expression," is both unnecessary and inaccurate. The word "programming" appears nowhere in the patent claims or specification in the context of how the instruction is used.

Turning to extrinsic evidence, the references identified by Defendant indicate Defendant's intention to use the word "programming" in a manner that further limits the term "instruction" to a statement or expression that executes or performs a CRC operation, which is not what the patent contemplates. For example, one dictionary defines "program state" as "the mode of operation of a computer during the ***execution of instructions*** in an application program." MCGRAW-HILL DICTIONARY OF SCIENTIFIC AND TECHNICAL TERMS, 5TH ED. 1587 (1994).[14] And another dictionary's definition of "program step" is "one instruction or operation in a routine; to step is to cause a computer ***to execute one operation***." THE ENCYCLOPEDIA OF MICROCOMPUTER TERMINOLOGY (1984).[15] Defendant's intention – to include the word

[14] Attached hereto as Exhibit H.
[15] Attached hereto as Exhibit I.

"program" in the definition of "instruction" in order to sneak "performing/executing an operation" into the claim's construction – is apparent from the extrinsic evidence it chose to cite. The Court should reject that attempt and adopt Plaintiffs' proffered construction for "instruction."

b. "instruction indicating [that] [the/a] CRC operation is to be [executed/performed/initiated]"

Plaintiffs' Proposed Construction	Defendant's Proposed Construction
A statement or expression consisting of an operation and its operands which indicates that an operation is to be performed using CRC polynomials to generate a CRC result to be used in error checking.	An instruction that, when executed, causes a CRC operation to be [executed/performed/initiated]

While the Court did not construe this specific phrase in the Freescale case, it construed all the relevant terms found therein. For the reasons stated above, the Court should disregard Defendant's attempt to read a "causing" limitation into the patent claims and adopt its prior construction that correctly defined an "instruction" as something that "indicates" that a particular operation is to be performed.

c. "CRC instruction"

Plaintiffs' Proposed Construction	Court's Provisional Construction in the Freescale Case	Defendant's Proposed Construction
A statement or expression consisting of an operation and its operands which indicates that a CRC operation is to be performed.	A statement or expression consisting of an operation and its operands which indicates that a CRC operation is to be performed.	An instruction that, when executed, causes a CRC operation to be performed.

The term "CRC instruction" was construed by this Court in the Freescale case and the Court adopted its construction despite a construction proposed by Freescale that is similar to the one currently proposed by Defendant. *See* Exh. E at 4. For the reasons discussed above,

Plaintiffs believe the Court should adopt that provisional construction in this case and disregard Defendant's attempt to read the additional, incorrect "causing" limitation into this straightforward term.

d. "instruction store"

Plaintiffs' Proposed Construction	**Court's Provisional Construction in the Freescale Case**	**Defendant's Proposed Construction**
An element that stores instructions in a computing device.	An element that stores instructions in a computing device.	A memory that stores a set of program instructions that are fetched for execution.

The term "instruction store" was construed by this Court in the Freescale case. *See* Exh. E at 4-5. Plaintiffs believe the Court should adopt that provisional construction in this case and disregard Defendant's attempt to read additional limitations into this straightforward term.

First, Defendant attempts to specify that the "instruction store" be characterized as a "memory" as opposed to the more accurate "element." Plaintiffs' proposed construction and the Court's provisional construction in the Freescale case are taken from the patents' specification and comport with the term's ordinary meaning and use in the claims. The specification provides that "[i]n general, the architecture of network processor 200 is implemented as a set of ***functional units*** . . . ." that "includes . . . ***an instruction store*** 203 . . . ." Exh. A, '072 Pat. at 3:27-32 (emphasis added). Additionally, "instruction store" derives its meaning by its functional ability to "store instructions," an attribute also supported by the patent specification "[t]he operation of network processor 200 is controlled by ***instructions stored in instruction store*** 203." *Id.* at 3:43-44 (emphasis added). Extrinsic evidence also bears out this straightforward definition: *see, e.g.,* MCGRAW-HILL DICTIONARY OF ELECTRICAL & COMPUTER ENGINEERING

554 (2004)[16] ("**store:** To preserve data in a storage device."). Nothing in either the intrinsic or extrinsic evidence requires that the instruction store be a "memory" or that instructions must be "fetched" from this memory.

As its name suggests, an "instruction store" is something that stores instructions. No more, no less. Defendant's attempts to add additional limitations into this construction should be rejected because the plain language of the term should control. The Court got this construction right the first time and it should defer to its prior ruling.

2. CRC [output] result

Plaintiffs' Proposed Construction	Court's Provisional Construction in the Freescale Case	Defendant's Proposed Construction
No construction necessary.	No construction necessary.	The remainder value computed by dividing the input data by a CRC polynomial.

The term "CRC [output] result" was considered by this Court in the Freescale case. *See* Exh. E at 3. Plaintiffs believe the Court should adopt its prior ruling – that no construction is necessary – and disregard Defendant's attempt to read additional limitations into this straightforward term.[17]

A person of ordinary skill in the art would understand a CRC result to be a value that results from a CRC operation. This is so basic that it does not require the Court's construction and will be easily understood by a jury. Yet Defendant attempts to read a specific limitation into this straightforward term by requiring a particular mathematical operation, much as the defendant in the Freescale case did. *See* Exh. G at 58:2-59:14. As evidenced by its ruling, the

[16] Attached hereto as Exhibit J.
[17] Once again, Defendant's proposed construction closely mirrors Freescale's proposed construction in that case. *See* Exh. W at 6. Since this Court already considered – and rejected – the "dividing" argument in the Freescale case, *stare decisis* supports the Court making the same ruling in this case.

Court was not convinced by Freescale's argument in that case and it should not be convinced by Defendant's argument here.

Specifically, "CRC result" is not defined anywhere in the patent to require any particular mathematical operation. While it is true that the patent's specification describes a CRC result as a remainder, that description is limited to the embodiment disclosed in Figure 4. *See* Exh. A, '072 Pat. at 5:64-67. The Court should ignore Defendant's attempt to import limitations from a single embodiment disclosed in the specification into the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (*en banc*).

3. CRC state data

Plaintiffs' Proposed Construction	Defendant's Proposed Construction
Data which initializes a CRC circuit prior to performing a CRC operation.	Information used to initialize the CRC circuit or allow the CRC circuit to perform the CRC operation incrementally

The parties appear to agree on the first portion of the construction of "CRC state data": "data or information that initializes a CRC circuit." The difference lies in Defendant's additional proposed requirement: according to Defendant, the CRC state data must also "allow the CRC circuit to perform the CRC operation incrementally." That additional limitation derives no support from the claim language or the specification and should be disregarded.

The specification describes the relevant process as follows. First, the ALU receives the input CRC data that is to be processed in the CRC operation (*i.e.*, divided by the CRC polynomial to derive a CRC result). As depicted in Figure 3, the input data may be input on a single line. In other embodiments, however, the CRC circuits may include two inputs: the input data and ***current state value data***. The two inputs may be concatenated (linked) and considered as a single input. *See* Exh. A, '072 Pat. at 4:37-42.

Next, in this alternate embodiment, the input data is represented as a 10-bit value and the CRC state data is a 5-bit value consisting of all zeroes. These values are concatenated and the CRC operation begins on this 15-bit value. *See id.* at 5:14-34. The effect of adding five zeroes to the first set of input data is to initialize the memory elements of the CRC circuit (shift registers) to a known state (all zeroes) before starting the CRC operation. A person of ordinary skill in the art would understand that the purpose of the CRC state data being concatenated with the input data is to initialize – or reset – the CRC circuit prior to the CRC operation.

The specification nowhere indicates an embodiment where the state data "allows the CRC circuit to perform the CRC operation incrementally." In fact, the specification makes clear that the input data is concatenated with the state data and they are then processed as a single value. Even more importantly, Claim 1 of the '072 patent discloses the selected CRC circuit receiving the ***state data***, then receiving the ***input data***, and then generating the CRC result. *Id.* at Cl. 1. In dependent claims 2-5, the only term used to describe the relevant data is "input data." *Id.* at Cls. 2-5. This demonstrates that the input data was concatenated with the state data, and the resultant value is being treated as a single value throughout the rest of the CRC process.

Defendant's proffered construction derives no support from the patents' claims or specification. The Court should adopt Plaintiffs' construction for "CRC state data," since it falls in line with the plain meaning of the patents themselves.

4. Crossbar switch

Plaintiffs' Proposed Construction	Defendant's Proposed Construction
A device that can simultaneously connect multiple inputs to multiple outputs, wherein each input is connected to each output through a path that contains a single switching node.	Circuit that connects one of multiple inputs to one of multiple outputs

The parties' proffered constructions of "crossbar switch" differ in several respects: (1) Plaintiffs refer to a crossbar switch as a 'device,' while Defendant characterizes it as a 'circuit'; (2) Plaintiffs specify that the connection of the multiple inputs to multiple outputs may occur 'simultaneously'; (3) Defendant limits the definition to connecting 'one of' multiple inputs to 'one of' multiple outputs, while Plaintiffs do not include this limitation; and (4) Plaintiffs specify that 'each input is connected to each output through a path that contains a single switching node.'

The only occurrence of the term "crossbar switch" in the patents-in-suit is in a description of an alternate embodiment for the bus interconnecting input register files to output register files. *See* Exh. A, '072 Pat. at Fig. 2; 3:39-42 ("Bus 210, although shown as a number of parallel signal lines, may alternatively be implemented as a crossbar switch."). The only claims in which the crossbar switch embodiment appear are three dependent claims in the '072 patent. *See id.* at Cls. 7, 8, 10.

Therefore, it is appropriate to turn to extrinsic evidence to define this term. *See Vitronics Corp. v. Conceptronics*, 90 F.3d 1576, 1584 (Fed. Cir. 1996). Plaintiffs cite to several technical dictionaries that define "crossbar switch" as "a structure" (not a "circuit," as Defendant would have it) that "allows N units" (not one of multiple inputs and one of multiple outputs, as Defendant would have it) to "communicate directly with each other, point to point," (indicating that such connections occur simultaneously, per Plaintiffs' proffered definition). *See, e.g.*,

PHILLIP A. LAPLANTE, COMPREHENSIVE DICTIONARY OF ELECTRICAL ENGINEERING 161 (2D ED. 2005)[18] and PHILLIP A. LAPLANTE, DICTIONARY OF COMPUTER SCIENCE ENGINEERING AND TECHNOLOGY 112 (2001)[19]. The ability to connect multiple inputs to multiple outputs is the primary distinction between Plaintiffs' and Defendant's positions.

A person of ordinary skill in the art would understand that each input is connected to each output through a path consisting of a single switching node. This portion of Plaintiffs' construction serves to differentiate the crossbar switch of the patents-in-suit from other, more complicated switching fabrics, in which a data packet may be routed through several internal nodes before being "switched" to the proper output. Therefore, the Court should adopt Plaintiffs' proposed construction of "crossbar switch," as it is more in line with the extrinsic evidence than Defendant's.

5. CRC circuit

Plaintiffs' Proposed Construction	Court's Provisional Construction in the Freescale Case	Defendant's Proposed Construction
A circuit configured to perform error-checking using a CRC polynomial.	A circuit configured to perform error-checking using a CRC polynomial.	Circuit configured to use a CRC polynomial.

The term "CRC circuit" was construed by this Court in the Freescale case. *See* Exh. E at 3. Plaintiffs believe the Court should adopt its provisional construction in this case and disregard Defendant's attempt to erroneously broaden the scope of this straightforward term.

The sole difference between the parties' proffered constructions is the omission of the phrase "to perform error-checking" from Defendant's definition. While it is possible, though

[18] Attached hereto as Exhibit K.
[19] Attached hereto as Exhibit L.

unlikely, that a CRC circuit may be configured in some inventions to perform an operation other than error-checking, that is not the case in the patents-in-suit.

The claims indicate that the purpose of a CRC circuit is to "perform the CRC operation" and "generat[e] the CRC result." *See* Exh. A, '072 Pat. at Cl. 1. CRC is, at base, an error-checking operation. *See id.* at 1:45-49 (defines CRC as an "error checking operation"); Exh. F at 87 ("a procedure used in checking for errors in data transmission . . . ."); ALAN FREEDMAN, THE COMPUTER DESKTOP ENCYCLOPEDIA 187 (2D ED. 1999) ("An error checking technique. . . .")[20]. The CRC circuits depicted in the patent have no discernible function other than to perform CRC operations. *See* Exh. A, '072 Pat. at 2:4-5 ("selecting a CRC circuit to use to perform the CRC operation"); 2:17-18 ("generates the CRC result using the CRC circuit); *and* 2:23-30 ("The first CRC circuit performs a CRC operation on input data . . . The second CRC circuit also performs a CRC operation on the input data . . . .").

Because there is no indication, either in the patents themselves or the extrinsic evidence, that a CRC circuit used to perform a CRC operation can perform any non-error checking operations, Defendant should not be permitted to omit that limitation. The Court should adopt Plaintiffs' proffered construction, which is identical to the Court's provisional construction of this term in the Freescale case.

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[20] Attached hereto as Exhibit M.

6. CRC operation

Plaintiffs' Proposed Construction	Court's Provisional Construction in the Freescale Case	Defendant's Proposed Construction
An operation performed using CRC polynomials to generate a CRC result to be used in error checking	An operation performed using CRC polynomials to generate a CRC result to be used in error checking.	Operation performed using CRC polynomials to generate a CRC result.

The term "CRC operation" was construed by this Court in the Freescale case. *See* Exh. E at 3. Plaintiffs believe the Court should adopt its provisional construction in this case and disregard Defendant's attempt to erroneously broaden the scope of this straightforward term.

The only difference between the parties' proffered definitions for "CRC operation" is Defendant's omission of the phrase "to be used in error checking." For the reasons stated above in support of Plaintiffs' construction of "CRC circuit," a CRC operation is not used for any reason other than error-checking in the patent, and the Court should adopt Plaintiffs' proffered construction, which is identical to the Court's provisional construction of this term in the Freescale case.

7. Switch

Plaintiffs' Proposed Construction	Defendant's Proposed Construction
A device that can selectively connect an input to one or more outputs.	Circuit used to select one of multiple signal paths

The parties' proffered definitions of "switch" differ in two significant ways: (1) Plaintiffs define a "switch" as a "device," while Defendant characterizes it as a "circuit" and (2) Plaintiffs describe the function of the switch as "selectively connecting an input to one or more outputs" while Defendant describes the function as "selecting one of multiple signal paths." Plaintiffs'

proposed construction falls in line with extrinsic evidence and how the term is used in the claims, and thus should be adopted by the Court.

First, while the patents-in-suit do not speak to whether a switch should be characterized as a "device" or more narrowly, as a "circuit," several technical dictionaries come down on the side of "device." *See* STEVEN M. KAPLAN, WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY 762 (2004)[21] and Exh. J at 564. Even Defendant's proffered extrinsic evidence defines a "switch" consistently as a "device" and not a circuit. *See* THE AUTHORITATIVE DICTIONARY OF IEEE STANDARDS TERMS 1133-34 (7th ed. 2000)[22]; MICROSOFT PRESS, COMPUTER DICTIONARY 429 (4th ed. 1999)[23]; THE PENGUIN DICTIONARY OF ELECTRONICS 560-61 (E.C. Young, Penguin Books, 2d ed. 1988)[24]; NEWTON'S TELECOM DICTIONARY 792 (20th ed. 2004)[25] and Exh. I. Because the patents do not speak to the matter either way, and because the extrinsic evidence identified by both parties defines a switch as a "device" and not a "circuit," Plaintiffs' proffered construction should be adopted over Defendant's more narrow definition.

Turning to the function of the switch, the plain language of the claims supports Plaintiffs' proposed construction. *See* Exh. C, '102 Pat. at Cl. 1 ("a switch for directing input data to ***at least one of the CRC circuits*** based on a CRC instruction") and Exh. B, '244 Pat. at Cl. 11 ("a switch for directing input data stored in the input register to ***at least one of the polynomial circuits*** based on a CRC instruction.") (emphasis added). In sum, the switch as described in the claims takes input (the input data) and routes it to one or more of the outputs (the CRC circuits) to which the data is selectively sent based on the CRC instruction. Plaintiffs' construction of "switch" as "a device that can selectively connect an input to one or more outputs" naturally

[21] Attached hereto as Exhibit N.
[22] Attached hereto as Exhibit O.
[23] Attached hereto as Exhibit P.
[24] Attached hereto as Exhibit Q.
[25] Attached hereto as Exhibit R.

follows from the claim language and the Court should adopt it. *See Phillips*, 415 F.3d at 1316 ("The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.") (internal citations omitted).

Defendant's construction, on the other hand, does not align with the use of the term "switch" in the claims. The proffered phrase "select ***one of*** multiple signal paths" inherently excludes the ability to send input data to ***more than one*** CRC circuit, as specifically contemplated by the claims. Also, the term "signal path" is not defined by, nor used anywhere in, the patents-in-suit. The addition of the words "signal path" to Defendant's proffered construction, then, does not clarify the term "switch" in any way that would be helpful to a juror.

In summary, Plaintiffs' proposed construction of "switch" is consistent with the extrinsic evidence and more importantly, comports with the plain language of the claims of the patents-in-suit. Defendant's proposed construction, on the other hand, is at odds with how the term is used in the claims and introduces a new term ("signal path") that would also have to be construed in order to arrive at a complete construction of "switch." The Court should adopt Plaintiffs' construction of "switch."

V. CONCLUSION

For all of the foregoing reasons, Plaintiffs respectfully request the Court enter its constructions for the ten terms/phrases in dispute.[26]

[26] Additional extrinsic evidence cited by Plaintiffs in its portion of the parties' P.R. 4-3 Joint Statement is attached hereto as:
Exhibit S - THE AMERICAN HERITAGE SCIENCE DICTIONARY 326 (2005);
Exhibit T- THE OXFORD ENGLISH DICTIONARY, VOL. VII 1049-50 (2D ED. 1989);
Exhibit U - THE NEW IEEE STANDARD DICTIONARY OF ELECTRICAL AND ELECTRONICS TERMS 1283 (1993); and
Exhibit V - MERRIAM WEBSTER'S COLLEGIATE DICTIONARY 207 (10TH ED. 1995).

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CERTIFICATE OF SERVICE

I hereby certify that on the 21st day of December, 2012, I electronically filed the foregoing document with the clerk of the court for the U.S. District Court, Eastern District of Texas, Tyler Division, using the electronic case filing system of the court. The electronic case filing system sent a "Notice of Electronic Filing" to the attorneys of record who have consented in writing to accept this Notice as service of this document by electronic means.

/s/ Jaime K. Olin
Jaime K. Olin